

WHAT IS CLAIMED IS:

1. A fingerprint authentication system comprising:

a fingerprint registration data section in which pieces of fingerprint data are registered;

5 a fingerprint read section which reads one fingerprint data;

a fingerprint collation section which inspects whether fingerprint data that matches or almost matches to the fingerprint data read by the fingerprint read section is registered in the fingerprint registration data section; and

10 a control section which replaces the fingerprint data that is registered in the fingerprint registration data section and that matches or almost matches to the fingerprint data read by the fingerprint read section, with the fingerprint data read by the fingerprint read section if the fingerprint data that matches or almost matches to the fingerprint data
15 read by the fingerprint read section is registered in the fingerprint registration data section.

2. A fingerprint authentication system comprising:

a fingerprint registration data section in which pieces of fingerprint data are registered;

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a fingerprint read section which reads one fingerprint data;

a fingerprint collation section which inspects whether fingerprint data that matches or almost matches to the fingerprint data read by the fingerprint read section is registered in the fingerprint registration data section; and

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a control section which registers the fingerprint data read by the fingerprint read section in the fingerprint registration data section

additionally to the fingerprint data that is registered in the fingerprint registration data section and that matches or almost matches to the fingerprint data read by the fingerprint read section if the fingerprint data that matches or almost matches to the fingerprint data read by the fingerprint read section is registered in the fingerprint registration data section.

3. The fingerprint authentication system according to claim 2, further comprising:

deletion means for deleting the fingerprint data having a general similarity that is highest among the pieces of fingerprint data registered in the fingerprint registration data section, from the fingerprint registration data section.

4. The fingerprint authentication system according to claim 3, further comprising:

general similarity calculation means for calculating similarities between each of the pieces of fingerprint data registered in the fingerprint registration data section and the fingerprint data other than the each fingerprint data, respectively, and for calculating the general similarity based on the similarities.

5. A fingerprint authentication method comprising:

a registration step of registering pieces of fingerprint data in a fingerprint registration data section;

a read step of reading one fingerprint data;

a fingerprint collation step of inspecting whether fingerprint data

that matches or almost matches to the fingerprint data read by the fingerprint read section is registered in the fingerprint registration data section; and

5 a replacement step of replacing the fingerprint data that is registered in the fingerprint registration data section and that matches or almost matches to the fingerprint data read by the fingerprint read section, with the fingerprint data read by the fingerprint read section if the fingerprint data that matches or almost matches to the fingerprint data read by the fingerprint read section is registered in the fingerprint
10 registration data section.

6. A fingerprint authentication method comprising:

a registration step of registering pieces of fingerprint data in a fingerprint registration data section;

15 a read step of reading one fingerprint data;

a fingerprint collation step of inspecting whether fingerprint data that matches or almost matches to the fingerprint data read by the fingerprint read section is registered in the fingerprint registration data section; and

20 an addition step of registering the fingerprint data read by the fingerprint read section in the fingerprint registration data section additionally to the fingerprint data that is registered in the fingerprint registration data section and that matches or almost matches to the fingerprint data read by the fingerprint read section if the fingerprint data
25 that matches or almost matches to the fingerprint data read by the fingerprint read section is registered in the fingerprint registration data section.

7. The fingerprint authentication method according to claim 6, further comprising:

5 A deletion step of deleting the fingerprint data having a general similarity that is highest among the pieces of fingerprint data registered in the fingerprint registration data section, from the fingerprint registration data section.

8. The fingerprint authentication method according to claim 7, further comprising:

10 general similarity calculation step of calculating similarities between each of the pieces of fingerprint data registered in the fingerprint registration data section and the fingerprint data other than the each fingerprint data, respectively, and for calculating the general similarity
15 based on the similarities.